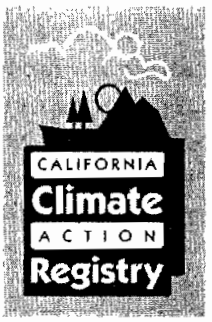

COMMENTS OF THE CALIFORNIA CLIMATE ACTION REGISTRY ON THE CALIFORNIA ENERGY COMMISSION'S DRAFT 2005 INTEGRATED ENERGY POLICY REPORT

The California Climate Action Registry (Registry) provides the following comments to the California Energy Commission's (CEC) Integrated Energy Policy Report Committee (Committee) on the draft 2005 Integrated Energy Policy Report (2005 IEPR) – 04 IEP 1K Committee Draft Document Hearings. We focus on two issues, which also pertain to Chairman Desmond's (CEC) September 22, 2005 letter to the Committee. First, we explain the electricity deliveries metric used by IOUs and municipal utilities reporting greenhouse gas (GHG) emissions to the Registry and its usefulness in capturing GHG emissions from both in-state and out-of-state power suppliers. The Registry recommends that the State make use of our electric deliveries metric to asses the GHG emissions associated with all power sold in California. Second, we discuss issues for the State to consider in a plan to apply a GHG performance standard on electricity procurement.

I. The California Legislature Created the Registry and it has Grown to Become the Gold-Standard in Emissions Accounting and Reporting

Registry was established by the California Legislature in 2000 as a non-profit voluntary registry for GHG emissions. The purpose of the Registry is to facilitate and support standardized and rigorous reporting of GHG emissions, help companies establish GHG emissions baselines, and encourage voluntary actions to increase energy efficiency and achieve GHG reductions. The State has also charged the Registry with developing procedures for reporting and certifying GHG emissions reductions.[1]

The Registry has several close ties to the State. First and foremost, the Registry's "procedures and protocols for monitoring, estimating, calculating, reporting, and certifying greenhouse gas emissions" are the only procedures and protocols recognized by the State.[2] In setting up the Registry the State committed to use its best efforts to ensure that organizations that establish greenhouse gas emissions baselines and register emissions receive appropriate consideration under any future international, federal, or

[1] CA Health and Safety Code Section 42823(c)
[2] CA Health And Safety Code Section 42822(a)

state regulatory scheme.[3] The Registry's nine-member board consists of the Secretary of the Resources Agency, the Secretary for Environmental Protection, one appointee from the Senate Committee on Rules, one appointee from the Speaker of the Assembly, and five representatives from business, local government, and public interest environmental organizations, appointed by the Governor.[4] Additionally, the California Resources Agency oversees the technical assistance and certification work conducted in accordance with the Registry's program.[5]

The Registry has played a central role in the State's climate change policy thus far, operating a rigorous voluntary GHG reporting program, collecting valuable data, gaining experience, developing tools and building relationships. Substantial resources have been spent developing measurement and certification protocols, software for inventorying and reporting GHGs from a variety of sources, procedures for accrediting and training certifiers and building a reservoir of staff experience and expertise. The Registry has earned an excellent reputation for establishing a gold standard for GHG reporting.

At this time, the Registry has nearly 60 members, among which 18 have certified data for calendar years ranging from 2000 to 2003. Data for 2004 will be available in early 2006, as the reporting deadline is December 2005. When the 2004 data is reported up to 40 organizations will have publicly reported their certified GHG emissions. Utilities represent the Registry's largest sector by membership (14 members) – a reflection of the success the Registry has had in recruiting power companies after developing its Power/Utility protocol. All California investor-owned and major municipal utilities belong to the Registry. During 2006, all power companies will report their 2005 GHG emissions according to the Registry's Power/Utility protocol. Thus, as discussed below, all load-serving entities in the Registry will report the CO_2 emissions associated with their electric retail deliveries, which includes generated and purchased power from both in-state and out-of-state suppliers.

II. The Registry's Power/Utility Protocol Provides a Metric for the State to Use to Account for All GHG Emissions Associated with the Delivery of Power in California

The Registry has made significant strides in facilitating accurate and consistent GHG emission reporting through its General Reporting Protocol (GRP) and two industry-specific protocols for forestry[6] and power generation,[7] which were developed with

[3] CA Health And Safety Code Section 42801(e)
[4] CA Health And Safety Code Section 42821(a)
[5] CA Health And Safety Code Section 42870
[6] The Forestry Protocols consist of three documents: 1) an entity-level protocol, 2) a project protocol, and 3) a certification protocol. Like the GRP and the General Certification Protocol, the forest sector entity-level and certification protocols provide GHG emission accounting, reporting, and certification guidance at the entity level; the forest sector project protocol provides guidance to forestry companies that wish to account and report GHG emission reductions resulting from one of three planned activities taking place on the forest company's land: conservation, reforestation and conservation-based forest management.
[7] The Power/Utility Protocols consist of two documents: 1) an entity-level protocol and 2) a certification protocol. These protocols provide GHG emission accounting, reporting, and certification guidance at the entity-level for companies that generate electricity for the wholesale or retail market and/or provide electricity transmission and delivery services.

funding from the CEC PIER program. Regarding power generation, the GRP provides Registry reporting rules and methodologies for determining emissions from common sources; the power/utility protocol supplements the GRP with targeted guidance for the electric power sector. Used together, the protocols provide the reporting rules and methodologies for measuring and reporting GHG emissions from electric utilities and power generators in an accurate, complete, standardized, and transparent manner.[8,9]

A key feature of the Registry's industry specific protocols is efficiency metrics, which enable the reporting of GHG emissions on a normalized basis – expressed as emission per some standardized unit. The power/utility protocol requires reporters to calculate a metric that relates CO_2 emissions from both generation facilities owned by the company and emissions associated with power purchases (from in-state and out-of-state suppliers) to energy (MWh) delivered to end users.

In reporting this metric, all utilities capture not only in-state but also out-of-state power sold to the customers in their respective service territories. The emissions are determined in a standardized way and applied uniformly across the state. This provides the State with a credible mechanism for estimating emissions associated with all power sold in California.

However, the Registry points out that the data currently available to utilities to calculate this metric should be improved. For example, there is uncertainty about the emissions associated with power purchased from arrangements with unidentified generation sources. In these situations the utilities currently apply an average emission factor, which is a stopgap solution until improved emission disclosure agreements are in place. Although the data collection systems have shortcomings at this time, the important point is that a cogent and usable framework is in place that can be enhanced to meet the State's needs. The Registry's GHG metric focuses on the logical point for assessing the emissions profile of delivered electricity: the utilities.

The utilities are the appropriate place to obtain information about generation sold in California because they have the best are the most informed about the power delivered in their respective territories. It is not enough to merely understand the emissions levels of plants that operate outside of the state and supply power across our border; we have to know how much electricity is coming in, where it's going, from what source(s) it came from, as well as information about that source(s) – either an emission factor associated with the electricity itself or, to the extent possible, the type of plant and its use.

Through the Registry's metric and with enhanced data collection systems (see below), the utilities gather robust emissions information from purchased power in accordance with our program rules which include rigorous and standardized reporting and independent verification. The State could rely on this data to inform its energy and climate policies and, crucially, have information about both in-state and out-of-state

[8] All Registry protocols are available on its website, www.climateregistry.org/Protocols

[9] Consistent with its legislative mandate, the Registry has also established Certification Protocols, which provide instruction to State and Registry approved certifiers for conducting a third-party verification of the reported emissions data.

generation. The Registry welcomes the opportunity to explore linkages with the CEC's power content labeling process.

There is a range of options for improving data collection. The Registry is currently working with its utility members to ensure that emissions information is provided as a stipulation of all existing and future procurement contracts. This will constitute a major step forward in improving calculations of emissions from purchased power, allowing the utilities to use supplier provide data instead of applying generalized emission factors, while ensuring that this supplier data is reported according the Registry's standards, maintaining accuracy, consistency and transparency. In fact, the California Public Utilities Commission's (CPUC) "GHG adder," provides further impetus in support of this approach.

Another approach the State might consider would be to develop a WREGIS-like system where each unit of energy (MWh) sold in the WECC (from all generators) would be tagged with information about the plant that produced it, when it was produced, and changes in ownership. This would show the fate of each unit of energy in the WECC from generation to consumption with sufficient information to determine the emissions associated with it.

Ultimately, the electric deliveries metric in the Registry's Power/Utility protocol, with enhanced data streams, will serve as a credible mechanism for California to use to successfully and explicitly account for all GHG emissions from power generation, whether located within the State or not. The utilities not only have the best data about the electricity sold in their respective service territories but also are members of the Registry, adhere to our reporting and certification rules, and use our delivery metric. We provide a listing of the Registry's utility members in Appendix A.

III. The State Could Apply the GHG Performance Standard to Individual Contracts or Plants or Against a Portfolio of New Procurement Choices; The Registry has Experience Developing Measurement and Verification Procedures for Offsets

The draft 2005 IEPR establishes a GHG performance standard at a level no less than a new combined-cycle new natural gas turbine, and recommends that the State apply this benchmark to all utility procurement. Furthermore, it suggests that the State consider the role GHG emission reductions offsets in determining compliance with the GHG performance standard.[10] The Registry's comments offer general considerations regarding the application of the GHG performance standard (i.e., on individual new contracts or plants or a portfolio of new procurement options) and then focus on issues relating to the nature and use of offsets.

[10] Draft 2005 IEPR, September 15, 2005, p.71

a. Considerations on applying the GHG performance standard

This discussion not only pertains to the 2005 IEPR proceedings but also to the CPUC's resolution to investigate a procurement benchmark for all new power contracts over three years in length and new IOU-owned generation.[11]

Since the State has decided what the performance standard should be (a new combined-cycle natural gas turbine – NGCC) and the CPUC has indicated where it would apply (new contracts for 3+ years and new IOU-owned generation), the broad issues to address include how to apply the performance standard and whether or not to use offsets and their limitations.

Generally, the State could apply the performance standard at an aggregate level or focus on a particular plant or contract. Directing the standard to a specific plant or contract provides certainty and clarity. Essentially, this creates a binary situation: either the new contract or plant exceeds the threshold of a new NGCC turbine or it doesn't. As a general illustration, the State could decide to approve, disapprove, or mitigate the new contract or plant by understanding how the emissions levels compare to a new NGCC turbine, depending on its process and the circumstances. The options for mitigation under this scenario, however, are somewhat constrained. For example, in cases where a proposed plant does not meet the performance standard and has no room for internal efficiency adjustments, the only option would be to compensate for emissions in excess of the standard by achieving emission reductions elsewhere, i.e. offsetting the emissions. However if the State chooses against using offsets, it faces challenges in dealing with new contracts and plants that don't meet the performance standard. Capturing and sequestering emissions may ultimately be an option, but for the short term the appropriate technology looks to remain expensive and is still in it is infancy.

On the other hand, the State could apply the performance standard on an aggregate level such that a set of new contracts or a grouping of plants would collectively be compared to the performance standard. Although, this might allow at an individual level a new contract or plant to exceed the emissions of a new NGCC turbine, it would keep the procurement portfolio in line with the State's goal. The benefit of applying a performance standard against the aggregate approach over the single contract or plant method is that it would convey greater flexibility to the utilities in their decision-making process. This approach could also allow for the use of offsets, but would also allow the utilities to retain a mix of options above and below the standard so long as the portfolio average performance met that of the standard. However, applying a performance standard at a portfolio level might result in a less clear market signal than directing the standard to specific contracts or plants.

In any approach, the State will need to consider the quantity of emissions in excess of the performance standard that it might allow to be offset. The State could permit a plant to offset the entire difference or only a portion. This might well depend on how exactly the performance standard was applied. If the State decided to apply the standard against individual contracts and plants and did not allow for other flexibility

[11] http://www.cpuc.ca.gov/PUBLISHED/NEWS_RELEASE/50163.htm

mechanisms, allowing offsets would necessarily be an all or nothing proposition. However, if the State permitted offsets to cover the entire difference between the standard and new procurement (either at the individual contract or plant or the aggregate level), incentives to shift the infrastructure of the power generation sector in a climate-positive direction could be reduced. Application of the performance standard on a portfolio basis could allow the State to place limits on the quantity of offsets that would be allowed to count toward achievement of the standard.

b. The nature and use of offsets

Offsets have the potential to reduce the cost of compliance for an entity required to meet an emissions limitation, either in the form of a cap and trade system or, as suggested in the draft 2005 IEPR, according to a performance standard. At the same time, offsets that satisfy an agreed-upon set of conditions are theoretically considered to not jeopardize the environmental integrity of the emission limitation scheme. There is more than one way to incorporate offsets into a program.

The CDM Approach. The most well-developed GHG offset program is the Clean Development Mechanism (CDM) under the Kyoto Protocol. Broadly speaking, the CDM allows for GHG reductions in developing countries to offset the emissions of capped sectors in developed nations. In order for a developing country project to be accepted as an offset, the CDM executive board must be confident that the reductions are real, surplus, verifiable, quantifiable and permanent. Under the CDM, each proposed project is evaluated on a case by case basis to ensure that offsets meet these principles. This has proven to be administratively complex, time consuming and expensive.

The Performance-/Standards-based Approach. In light of the experience of the CDM process, the Registry has been developing an approach to offsets that is performance and/or standards-based. This means that for a reduction project to be acceptable as an offset it would have to be of a prescribed type and meet specific standards. This approach would allow the Registry and State to set out clear and prescriptive eligibility requirements and reporting guidelines, rather than rely upon a separate regulatory approval process for each project; it also reduces transaction costs. Moreover, it could be set at a level (for each typology) such that only projects that yield emission reductions of a precise caliber become eligible to offset emission in excess of the procurement performance standard.

While there is a large universe of potential projects that might reduce GHGs, designing a cost effective and administratively streamlined structure for identifying and approving projects will require standardizing all parts of the process to the fullest extent possible. This could involve selecting a basic overarching framework for evaluating all projects, developing standard quantification protocols for each eligible project typology/sector and adopting standard approaches to verification, among other steps. The Registry has extensive experience in developing these kinds of standard approaches, particularly in the development of GHG measurement protocols, and works with a wide range of stakeholders to ensure their acceptance and credibility. To date, the Registry has developed a project protocol for the forestry sector, which guides project developers through a rigorous methodology to determine emission reductions and provides many co-

benefits to the State. Other examples of potential target sectors include methane capture and power generation from landfills, agriculture, cement, among others.

Much like annual reporting of entity-wide GHG emissions, offset projects require ongoing monitoring and reporting of project activity data, emission reductions, leakage, etc. These data collection activities are already a part of the Registry's core functions. In some cases, offset projects might necessitate the collection of monitoring data and tracking liability over long periods of time. This is especially true of carbon sinks, such as forestry projects, where sequestered carbon could potentially be subject to reversals.

In designing an offset program, the State will undoubtedly want to consider potential regional or national linkages. These linkages might include cross recognition agreements to recognize offsets from different jurisdictions. Coordinating with regional and other jurisdictions to ensure agreement on minimum acceptable standards for offsets would be an important prerequisite to such linkages and the Registry already works on these "common currency" types of issues.

Carbon Offset Fund. In another approach that makes use of offsets for compliance with the procurement performance standard, California could implement a carbon fund. Both Oregon and Washington have carbon offset funds which require new power plant developers to provide offsets to compensate for some of the new emissions the plants are expected to generate. The developers are allowed to provide offsets themselves or to contribute to a State Carbon Trust that buys and retires offsets. Experience indicates that the Carbon Trust approach is preferred by developers.

The carbon fund could be used by the State to invest in projects that would deliver low cost, high quality carbon reductions. The State could identify eligible project types and set out guidelines for project developers. The Registry could function in its core role as data collector, and also as the entity that purchases and retires these offsets, similar to the non-profit organizations created by other states to handle these tasks.

IV. Conclusion

The Registry's delivery metric provides the State a verifiable mechanism to capture all power generation to in California from both in-state and out-of-state suppliers. The majority of emissions associated with the power sold to end-users is accounted for through this metric. The Registry looks forward to working with the CEC, the CPUC, the utilities and other interested stakeholders to improve its data collection systems. As the State begins to refine an approach to develop and implement a GHG performance standard for power generation the Registry stands ready to provide assistance, especially with our experience in offset issues.

Appendix A

Registry Power/Utility Reporters and Data Submitted to Date

Power/Utilities

Anaheim Public Utilities	Certified 2003; 2004 in process
Burbank Water & Power	2004 in process
Calpine Corporation	Certified 2003; 2004 in process
Glendale Water & Power	2004 in process
LA Department of Water & Power	Certified 2002; 2003, 2004 in process
Northern California Power Agency	
PG&E Corporation	Certified 2002, 2003; 2004 in process
PacifiCorp	2004 in process
Pasadena Water & Power	
Platte River Power Authority	
Sacramento Municipal Utility District	Certified 2002, 2003; 2004 in process
SDG&E	2004 in process
Southern California Edison	Certified 2002, 2003; 2004 in process
West Coast Power	2004 in process